



RECEIVED

December 4, 1992

DEC 07 1992

Division of Oil, Gas & Mining
3 Triad Center, Suite 350
Salt Lake City, UT 84180-1203
Attn: Tammi Searing

DIVISION OF
OIL GAS & MINING

Re: Duncan Energy Company
Eclipse State #23-16
1615' FSL and 1680' FWL
NE SW Sec. 16, T38S - R25E
San Juan County, Utah

Dear Tammi,

Enclosed please find three copies of the A.P.D. on the above mentioned well along with three copies of the drilling program. Attached is a copy of the temporary water appropriate permit which has been filed with the Division of Water Rights in Price, Utah, along with a copy of a letter from Mr. Richard Perkins granting his permission for use of this water source.

Due to limited rig availability in the area, Duncan Energy Company plans to spud this well on December 20, 1992. Therefore, your early approval of this application would be greatly appreciated.

If you should need additional information, please feel free to contact me.

Happy Holidays!

PERMITCO INC.

Lisa L. Smith
Consultant for:
Duncan Energy Company

Enc.

cc: Duncan Energy Company - Denver, CO

Permitco Incorporated
A Petroleum Permitting Company

13585 Jackson Drive Denver, Colorado 80241 (303) 452-8888

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

(Other instructions on reverse side)

5. Lease Designation and Serial No.

ML-26992

6. If Indian, Allottee or Tribe Name

N/A

7. Unit Agreement Name

N/A

8. Farm or Lease Name

Eclipse State

9. Well No.

#23-16

10. Field and Pool, or Wildcat

Wildcat

11. Sec., T., R., M., or Blk. and Survey or Area

Sec. 16, T38S - R25E

12. County or Parrish 13. State

San Juan

Utah

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work

DRILL ☒DEEPEN ☐PLUG BACK ☐

b. Type of Well

Oil Well ☒Gas Well ☐Other ☐Single Zone ☒Multiple Zone ☐

2. Name of Operator 303/759-3303

1777 S. Harrison St., PH-I

Duncan Energy Company

Denver, CO 80210

3. Address of Operator 303/452-8888

13585 Jackson Drive

Permitco Inc. - Agent

Denver, CO 80241

4. Location of Well (Report location clearly and in accordance with any State requirements.)*

At surface

1615' FSL and 1680' FWL

At proposed prod. zone

NE SW

14. Distance in miles and direction from nearest town or post office*

30 miles southeast of Monticello, Utah

15. Distance from proposed*

location to nearest property or lease line, ft. (Also to nearest drlg. line, if any)

1615'

16. No. of acres in lease

600

17. No. of acres assigned to this well

40

18. Distance from proposed location* to nearest well, drilling, completed, or applied for, on this lease, ft.

none

19. Proposed depth

5920'

20. Rotary or cable tools

Rotary

21. Elevations (Show whether DF, RT, GR, etc.)

5192' GR

22. Approx. date work will start*

December 20, 1992

23.

PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
12-1/4"	8-5/8"	24#	1700'	600 sx - circ to surface
7-7/8"	5-1/2"	15.5#	5920'	400 sx - through pay zones

Duncan Energy Company proposes to drill a well to 5980' to test the Ismay formation. If productive, casing will be run and the well completed. If dry, the well will be plugged and abandoned as per BLM and State of Utah requirements.

See Drilling Prognosis attached.

We realize that the above mentioned location has been staked at non-standard footages in accordance with the spacing rules of the State of Utah, Division of Oil, Gas & Mining. This location was staked based on seismic interpretation. Duncan Energy is the leaseholder of all of Section 16, T38S - R25E (with the exception of the NE NE). Therefore, we request that you grant approval for this location at non-standard footages.

RECEIVED

DEC 07 1992

DIVISION OF

OIL, GAS & MINING

TECHNICAL REVIEW

Engr.

Geol.

Surface

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM. If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

Signed

Duncan Energy Company

Title

Consultant for
Duncan Energy Company

Date

Dec. 4, 1992

(This space for Federal or State office use)

Permit No.

43-037-31698

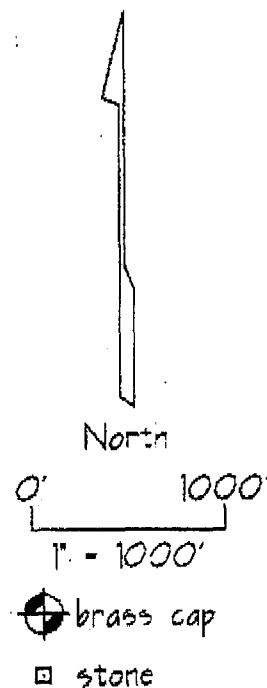
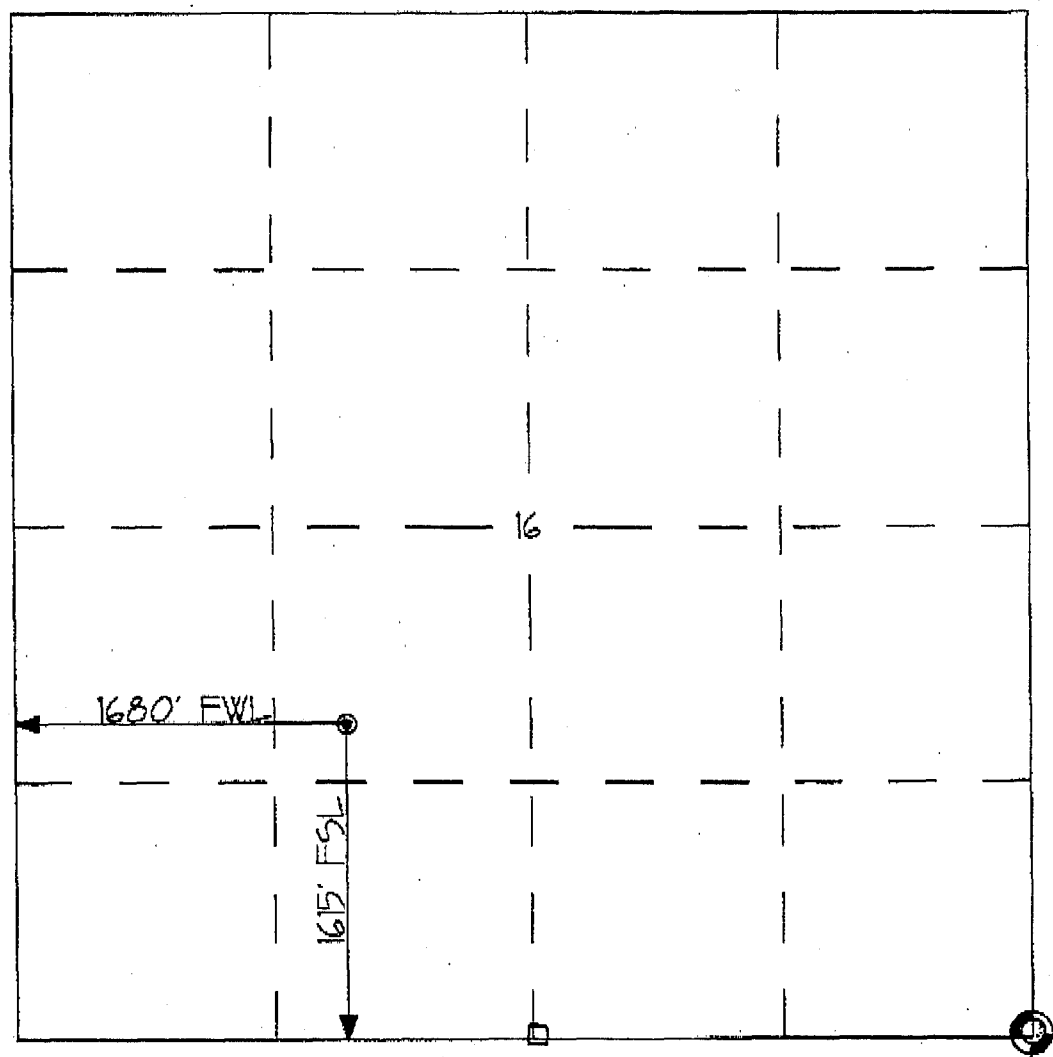
Approval Date

Approved by

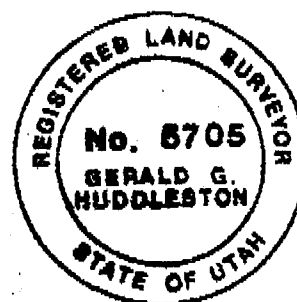
Title

Conditions of approval, if any:

12-21-92
JMM
649-3-3

Well Location PlatWell Location Description

R. T. DUNCAN
Eclipse State # 23-16
1615' FSL & 1680' FWL
Section 16, T.38 S., R.25 E., SLM
San Juan County, Utah
5192' ground elevation



17 November 1992

Gerald G. Huddleston
Gerald G. Huddleston, L.S.

The above is true and correct to my knowledge and belief.

DRILLING LOCATION ASSESSMENT

State of Utah Division of Oil, Gas and Mining

OPERATOR: DUNCAN ENERGY WELL NAME: ECLIPSE STATE #23-16
SECTION: 16 TWP: 38S RNG: 25E LOC: 1615 FSL 1680 FWL
QTR/QTR NE/SW COUNTY: SAN JUAN FIELD: WILDCAT
SURFACE OWNER: STATE OF UTAH
SPACING: 460 F SECTION LINE 460 F QTR/QTR LINE 920 F ANOTHER WELL
INSPECTOR: GLENN GOODWIN DATE AND TIME: 12/1/92

PARTICIPANTS: Max Sims-Duncan, Dave Krouskop-BLM, Lowell Larson-Contractor

REGIONAL SETTING/TOPOGRAPHY: Southeastern Utah, Paradox Basin, This is an area of high flat mesas dissected by deep canyons. The proposed location is on a fairly flat area on the slope between a mesa and Little Nancy Canyon. There is a small drainage on the south which will need rerouting.

LAND USE:

CURRENT SURFACE USE: None

PROPOSED SURFACE DISTURBANCE: A rectangular pad will be constructed with dimensions of 150'X 300' with a 140'X 75' extension for the reserve pit. An access road approximately 1 mile long will be constructed. A portion of this access road is on BLM surface.

AFFECTED FLOODPLAINS AND/OR WETLANDS: None

FLORA/FAUNA: Ephedra, Greasewood, Sage, scattered grasses/Deer, Rabbits, birds

ENVIRONMENTAL PARAMETERS

SURFACE GEOLOGY

SOIL TYPE AND CHARACTERISTICS: silty clay soil with some rock fragments.

SURFACE FORMATION & CHARACTERISTICS: Morrison Fm.

EROSION/SEDIMENTATION/STABILITY: No active erosion or sedimentation at this time. The location should be stable.

PALEONTOLOGICAL POTENTIAL: None observed

SUBSURFACE GEOLOGY

OBJECTIVES/DEPTHS: Ismay-5520', Desert Creek-5855'

ABNORMAL PRESSURES-HIGH AND LOW: None anticipated

CULTURAL RESOURCES/ARCHAEOLOGY: Cleared

CONSTRUCTION MATERIALS: Onsite materials will be used for construction.

SITE RECLAMATION: As per State Lands instructions.

RESERVE PIT

CHARACTERISTICS: A rectangular reserve pit will be constructed with dimensions of 140'X 75'X 10'.

LINING: The reserve pit will be lined with bentonite.

MUD PROGRAM: 0-4000'/native mud; 4000-5920'/Chem. gel

DRILLING WATER SUPPLY: Richard Perkins/Montezuma Creek Ranch

OTHER OBSERVATIONS

STIPULATIONS FOR APD APPROVAL

Line reserve pit with approximately 2 lbs./ft² bentonite.

Berm location on the south, east and north.

Reroute all drainages around the location.

ATTACHMENTS

Photographs will be placed on file.

CONFIDENTIAL - TIGHT HOLE

ECLIPSE STATE #23-16
1615' FSL and 1680' FWL
NE SW Sec. 16, T38S - R25E
San Juan County, Utah

Prepared For:

DUNCAN ENERGY COMPANY

By:

PERMITCO INC.
13585 Jackson Drive
Denver, Colorado 80241
303/452-8888

Copies Sent To:

3 - Division of Oil, Gas & Mining
2 - Duncan Energy Company - Denver, CO



Permitco Incorporated
A Petroleum Permitting Company

Application for Permit to Drill
DUNCAN ENERGY COMPANY
Eclipse State #23-16
1615' FSL and 1680' FWL
NE SW Sec. 16, T38S - R25E
San Juan County, Utah

CONFIDENTIAL - TIGHT HOLE

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1. Formation Tops

The estimated tops of important geologic markers are as follows:

<u>Formation</u>	<u>Depth</u>
Chinle	1648'
Shinarump	2450'
Moenkopi	2504'
Cutler	2566'
Honaker Trail	4423'
Ismay	5520'
Upper Ismay Carbonate	5555'
Hovenweep Shale	5685'
Lower Ismay	5725'
Gothic Shale	5770'
Desert Creek	5855'
Lower Desert Creek	5855'
Chimney Rock Shale	5875'
T.D.	5920'

2. Casing Program

The proposed casing program will be as follows:

<u>Purpose</u>	<u>Depth</u>	<u>Hole Size</u>	<u>O.D.</u>	<u>Weight</u>	<u>Grade</u>
Conductor	0-120'	17-1/2"	13-3/8"	48#	H-40
Surface	0-1700'	12-1/4"	8-5/8"	24#	J-55
Produc.	0-5920'	7-7/8"	5-1/2"	15.5#	J-55

Casing design subject to revision based on geologic conditions encountered.

3. Cement Program

The cement program will be as follows:

Surface
0-1700'

Type and Amount
+/- 600 sx or sufficient to circulate to surface.

Production

Type and Amount
+/- 400 sx through pays

4. Drilling Fluids

The proposed circulating mediums to be employed in drilling are as follows:

<u>Interval</u>	<u>Mud Type</u>	<u>Mud Wt.</u>	<u>Visc.</u>	<u>FL</u>	<u>PH</u>
0-4000'	Natural	9.0-9.2	32	10-20	--
4000-5920'	Chem. Gel	9.2-9.5	45	<10 thru pays	

5. Testing, Logging and Coring

The anticipated type and amount of testing, logging and coring are as follows:

- a. One drill stem test is planned in the upper 30' of the Upper Ismay porosity. An additional DST is possible in the Desert Creek formation is shows warrant.
- b. The logging program will consist of a BHC and DIL from base of surface casing to T.D. A CNL-FDC will be run from 4400' to T.D.
- c. No Cores are anticipated.

6. Spud Date/Drilling Time

- a. Drilling is planned to commence on approximately December 20, 1992.
- b. It is anticipated that the drilling of this well will take approximately 14 days.

7. Road Use/Water Source

- a. All existing access is located on County Roads. New access will be constructed across BLM lands in Section 9, T38S - R25E. A ROW permit will be filed with the BLM in Monticello, Utah. The remainder of the access is on state lands which are covered under Lease No. ML-26992.
- b. Drilling water will be obtained from Richard Perkins at the Montezuma Creek Ranch. The location of the water sources are as follows:
 - 1) N 2350' W 444' from SE cor., Sec. 12, T38S - R24E
 - 2) N 1946' E 1152' from SW cor., Sec. 7, T38S - R25E
 - 3) N 1651' E 2236' from SW cor., Sec. 7, T38S - R25E
 - 4) N 917' E 2414' from SW cor., Sec. 7, T38S - R25E

The proposed water sources are located on private lands. A Temporary Change application has been filed with the Utah Division of Water Rights for use of these water sources. Permit #09-169.

8. BOP Requirements

Duncan Energy Company's minimum specifications for pressure control equipment are as follows:

Ram Type: 10" Hydraulic double, 3000 psi w.p.

Ram type preventers and associated equipment shall be tested to approved stack working pressure if isolated by test plug or to 70 percent of internal yield pressure of casing. Pressure shall be maintained for at least 10 minutes or until requirements of test are met, whichever is longer. If a test plug is utilized, no bleed-off pressure is acceptable. For a test not utilizing a test plug, if a decline in pressure of more than 10 percent in 30 minutes occurs, the test shall be considered to have failed. Valve on casing head below test plug shall be open during test of BOP stack.

As a minimum, the above test shall be performed:

- a. when initially installed;
- b. whenever any seal subject to test pressure is broken
- c. following related repairs; and
- d. at 30-day intervals

Valves shall be tested from working pressure side during BOPE tests with all down stream valves open.

When testing the kill line valve(s) the check valve shall be held open or the ball removed.

Pipe and blind rams shall be activated each trip, however, this function need not be performed more than once a day.

Pressure tests shall apply to all related well control equipment.

All of the above described tests and/or drills shall be recorded in the drilling log.

BOP systems shall be consistent with API RP53. Pressure tests will be conducted before drilling out from under casing strings which have been set and cemented in place. Blowout preventer controls will be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection will be recorded on the daily drilling report. Preventers will be pressure tested before drilling casing cement plugs.

Application for Permit to Drill
DUNCAN ENERGY COMPANY
Eclipse State #23-16
1615' FSL and 1680' FWL
NE SW Sec. 16, T38S - R25E
San Juan County, Utah

CONFIDENTIAL - TIGHT HOLE

Page 5

- a. The size and rating of the BOP stack is shown on the attached diagram.
- b. A choke line and a kill line are to be properly installed. The kill line is not to be used as a fill-up line.
- c. The accumulator system shall have a pressure capacity to provide for repeated operation of hydraulic preventers.
- d. Drill string safety valve(s), to fit all tools in the drill string, are to be maintained on the rig floor while drilling operations are in progress.

9. Anticipated Pressures

- a. The expected maximum bottom hole pressure is 2200 psi.
- b. No hydrogen sulfide gas or abnormal pressures are anticipated.

MAP #1

Eclipse State #23-16

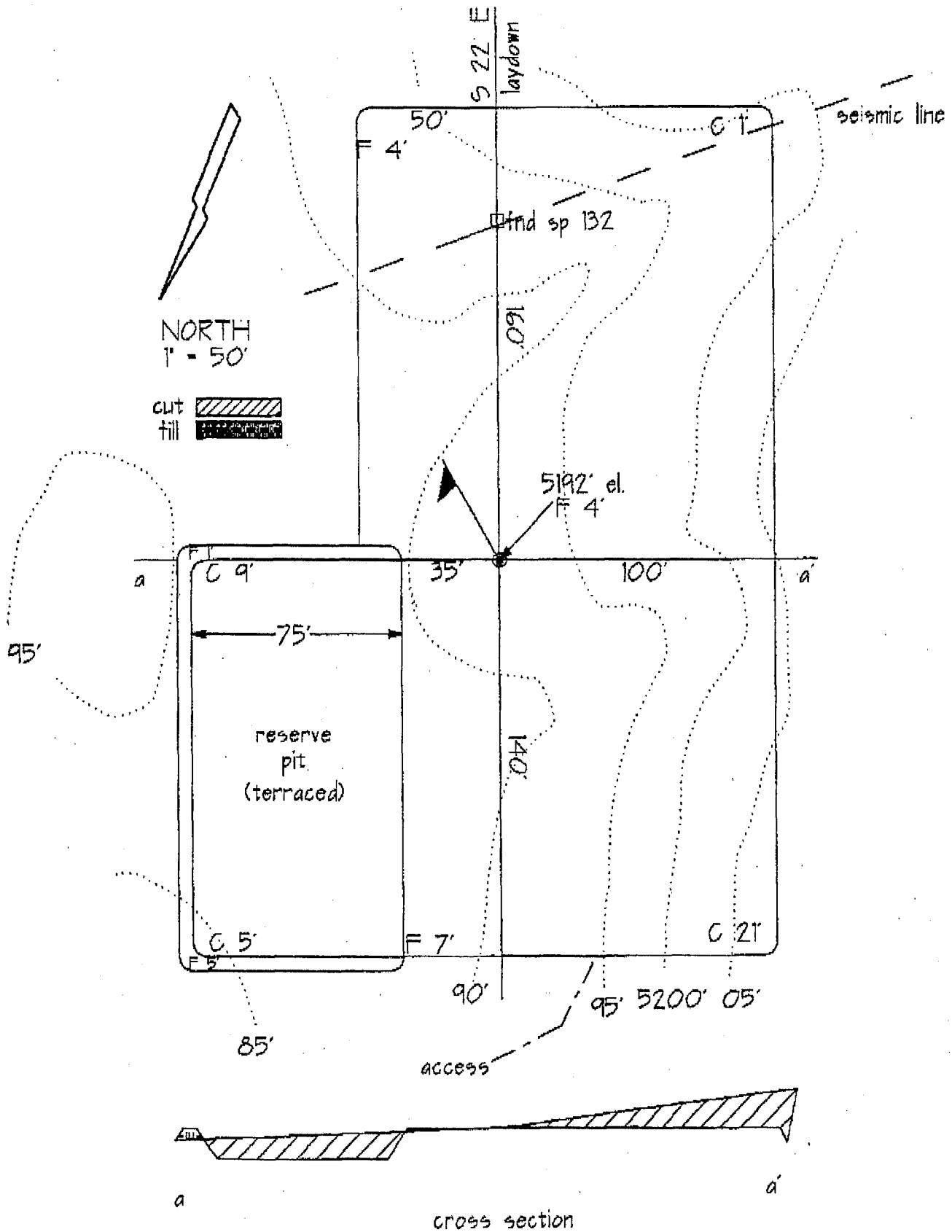
NE SW Sec. 16, T38S - R25E

San Juan County, Utah

—Existing County Road

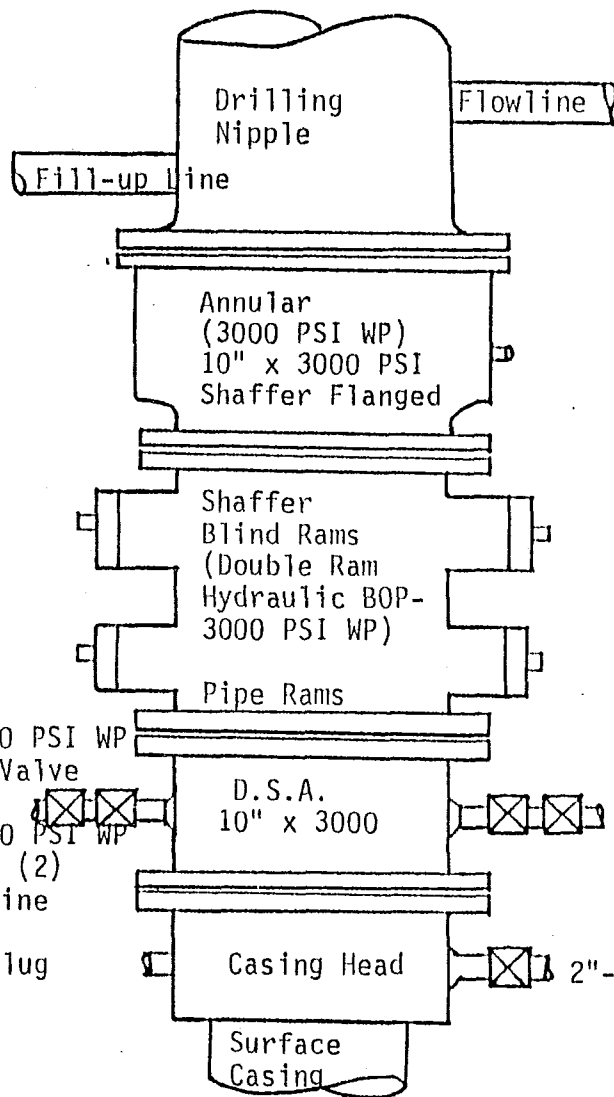
----- New Access to be Built

Eclipse State # 23-16



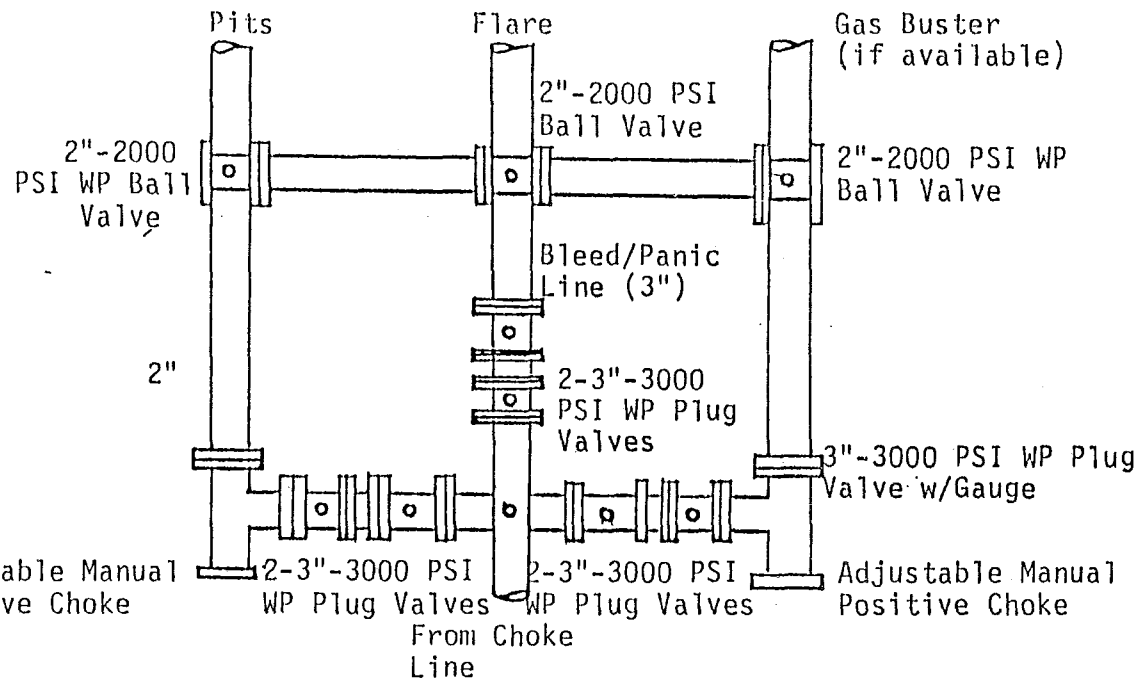
BOP SCHEMATIC
3000 PSI WORKING PRESSURE

PLAN VIEW CHOKE MANIFOLD



3"-3000 PSI WP Valve
3"-3000 PSI WP Valve
3"-3000 PSI
Automatic Choke
Choke Line (3" ID)

2"-3000 PSI WP Valve



The hydraulic closing unit will be located more than 30' from the wellhead. Choke and bleed/panic lines will go to the pit and flare. All connections in choke lines and manifold will be flanged or welded. All flanges should be ring joint gasket type. All turns in lines shall be constructed using targeting 90° tees or ells. All lines shall be anchored.

FILING FOR WATER IN THE STATE OF UTAH

APPLICATION TO APPROPRIATE WATER

Rec. by _____

Fee Rec. _____

Receipt # _____

Microfilmed _____

Roll # _____

For the purpose of acquiring the right to use a portion of the unappropriated water of the State of Utah, application is hereby made to the State Engineer, based upon the following showing of facts, submitted in accordance with the requirements of Title 73, Chapter 3 of the Utah Code Annotated (1953, as amended).

* WATER RIGHT NO. _____

* APPLICATION NO. A

1. *PRIORITY OF RIGHT: _____ * FILING DATE: _____

2. OWNER INFORMATION

Name(s): Duncan Energy Company (303/759-3303) * Interest: _____ %

Address: 1777 S. Harrison Street, PH-1

City: Denver State: CO Zip Code: 80210

Is the land owned by the applicant? Yes _____ No XX

(If "No", please explain in EXPLANATORY section.)

3. QUANTITY OF WATER: _____ cfs and/or 5 ac-ft

4. SOURCE: _____ * DRAINAGE: _____

which is tributary to _____

which is tributary to _____

POINT(S) OF DIVERSION: _____ COUNTY: San Juan

1) N 2350' W 444' from SE Corner of Sec. 12, T38S - R24E 4) N 917' E 2414' from

2) N 1946' E 1152' from SW Corner of Sec. 7, T38S - R25E) SW Corner of Sec. 7,

3) N 1651' E 2236' from SW Corner of Sec. 7, T38S - R25E) T38S - R25E

Description of Diverting Works: Pump Truck

* COMMON DESCRIPTION: _____

5. POINT(S) OF REDIVERSION

The water will be rediverted from N/A at a point:

Description of Rediverting Works: _____

6. POINT(S) OF RETURN

The amount of water consumed will be _____ cfs or 5 ac-ft

The amount of water returned will be -0- cfs or _____ ac-ft

The water will be returned to the natural stream/source at a point(s): _____

7. STORAGE

Reservoir Name: _____ Storage Period: from _____ to _____

Capacity: _____ ac-ft. Inundated Area: _____ acres

Height of dam: _____ feet

Legal description of inundated area by 40 acre tract(s): _____

* These items are to be completed by the Division of Water Rights

Appropriate

8. List any other water rights which will supplement this application _____

9. NATURE AND PERIOD OF USE

Irrigation:	From _____	to _____
Stockwatering:	From _____	to _____
Domestic:	From _____	to _____
Municipal:	From _____	to _____
Mining:	From _____	to _____
Power:	From _____	to _____
Other: Oil Well Drilling	From 12/15/92	to 4/15/93

10. PURPOSE AND EXTENT OF USE

Irrigation: _____ acres. Sole supply of _____ acres.
Stockwatering (number and kind): _____
Domestic: _____ Families and/or _____ Persons
Municipal (name): _____
Mining: _____ Mining District in the _____ Mine
Ores mined: _____
Power: Plant name: _____ Type: _____ Capacity: _____
Other (describe): Duncan Energy Company plans to drill the Eclipse State #23-16.
Anticipated spud date is December 20, 1992.

11. PLACE OF USE

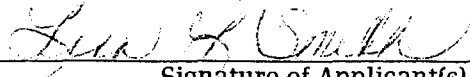
Legal description of place of use by 40 acre tract(s): _____

Eclipse State #23-16, 1615' FSL and 1680' FWL, NE NW Sec. 16, T38S - R25E

12. EXPLANATORY

The following is set forth to define more clearly the full purpose of this application. (Use additional pages of same size if necessary): Duncan Energy Company proposes to drill an oil well at the location shown above for the Eclipse State #23-16. Water to drill this well will not exceed 5 acre feet. Water will be trucked to the proposed drill-site. The pump truck will have a capacity of 80-100 bbls. and will be enclosed. The surface at the drillsite is owned by the State of Utah, the minerals are also owned by the State of Utah and the extraction rights to this state lease is owned by Duncan Energy Company under lease no. ML-26992. Permission for the use of the water has been obtained from Mr. Richard Perkins as per the attached letter.

The applicant(s) hereby acknowledges that he/she/they are a citizen(s) of the United States of America or intends to become such a citizen(s). The quantity of water sought to be appropriated is limited to that which can be beneficially used for the purposes herein described. The undersigned hereby acknowledges that even though he/she/they may have been assisted in the preparation of the above-numbered application through the courtesy of the employees of the Division of Water Rights, all responsibility for the accuracy of the information contained herein, at the time of filing, rests with the applicant(s).


Signature of Applicant(s)
Lisa L. Smith - Authorized Agent for
Duncan Energy Company

Dec 4 1992

State of Utah
Natural Resources
Water Rights

Dear Sirs

I give Duncan Energy
permission to use water from
wells at Montezuma Creek Ranch
No. 09-169 Act No. 6249

Yours truly

Richard Perkins

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

DATE RECEIVED: 12/07/92

OPERATOR: DUNCAN ENERGY COMPANY
WELL NAME: ECLIPSE STATE 23-16

OPERATOR ACCT NO: N- 3370

API NO. ASSIGNED: 43 - 037-31698

LEASE TYPE: STA LEASE NO: ML-016990
LOCATION: NESW 16 - T38S - R25E SAN JUAN COUNTY
FIELD: WILCAT FIELD CODE: 001

RECEIVED AND/OR REVIEWED:

☒ Plat
☒ Bond
(Number State 3834244)
☒ Potash (Y/N)
☒ Oil shale (Y/N)
☒ Water permit
(Number included in file)
☒ RDCC Review (Y/N)
(Date: 12-9-92)

LOCATION AND SITING:

☐ R649-2-3. Unit: _____
☐ R649-3-2. General.
☒ R649-3-3. Exception.
☐ Drilling Unit.
Board Cause no: _____
Date: _____

COMMENTS:

No other well within Sec 16
Unit for permit 12-10-92
Exception location requested

STIPULATIONS:

1. Reserve pit to be lined with 2165/ft² of bentonite
2. Location is to be bermed on North, East and South.
3. All Drainages are to be rerouted around location.
4. RDCC.

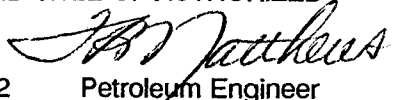
CONFIDENTIAL
PERIOD

EXPIRED

ON 4-26-94

STATE ACTIONS

Mail to:
RDCC Coordinator
116 State Capitol
Salt Lake City, Utah 84114

-
1. ADMINISTERING STATE AGENCY
OIL, GAS AND MINING
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
2. STATE APPLICATION IDENTIFIER NUMBER:
(assigned by State Clearinghouse)
-
3. APPROXIMATE DATE PROJECT WILL START:
December 20, 1992
-
4. AREAWIDE CLEARING HOUSE(s) RECEIVING STATE ACTIONS:
(to be sent out by agency in block 1)
Southeastern Utah Association of Governments
-
5. TYPE OF ACTION: ☐ Lease ☒ Permit ☐ License ☐ Land Acquisition
☐ Land Sale ☐ Land Exchange ☐ Other _____
-
6. TITLE OF PROPOSED ACTION:
Application for Permit to Drill
-
7. DESCRIPTION:
Duncan Energy Company proposes to drill the Eclipse State #23-16 well (wildcat) on state lease ML-26992, Carbon County, Utah. This action is being presented to RDCC for consideration of resource issues affecting state interests. The Division of Oil, Gas and Mining is the primary administrative agency in this action and must issue approval before operations commence.
-
8. LAND AFFECTED (site location map required) (indicate county)
NE/4, SW/4, Section 16, Township 38 South, Range 25 East, San Juan County, Utah
-
9. HAS THE LOCAL GOVERNMENT(s) BEEN CONTACTED?
-
10. POSSIBLE SIGNIFICANT IMPACTS LIKELY TO OCCUR:
Degree of impact is based on the discovery of oil or gas in commercial quantities.
-
11. NAME AND PHONE NUMBER OF DISTRICT REPRESENTATIVE FROM YOUR AGENCY NEAR PROJECT SITE, IF APPLICABLE:
-
12. FOR FURTHER INFORMATION, CONTACT: 13. SIGNATURE AND TITLE OF AUTHORIZED OFFICIAL:
Frank R. Matthews
PHONE: 538-5340
- DATE: 12-16-92  Petroleum Engineer
-

WOI187



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Norman H. Bangerter
Governor

Dee C. Hansen
Executive Director

Dianne R. Nielson, Ph.D.
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

December 21, 1992

Duncan Energy Company
1777 S. Harrison St., PH-1
Denver, Colorado 80210

Gentlemen:

Re: Eclipse State #23-16 Well, 1615 feet from the south line, 1680 feet from the west line, NE 1/4 SW 1/4, Section 16, Township 38 South, Range 25 East, San Juan County, Utah

Pursuant to Utah Admin. R. 649-3-3, Exception to Location and Siting of Wells and Utah Admin. R. 649-3-4, Permitting of Wells to be Drilled, Deepened or Plugged-Back, approval to drill the referenced well is hereby granted.

In addition, the following specific actions are necessary to fully comply with this approval:

1. The reserve pit is to be lined with 2 lbs./ft² of bentonite.
2. Location is to be bermed on north, east and south.
3. Drainages are to be rerouted around location.
4. The Application for Permit to Drill has been forwarded to the Resource Development Coordinating Committee for review of this action. Duncan Energy Company, will be required to comply with any applicable recommendations resulting from the review.
5. Compliance with the requirements of Utah Admin. R. 649-1 et seq., Oil and Gas Conservation General Rules.
6. Notification within 24 hours after drilling operations commence.

Page 2
Duncan Energy Company
Eclipse State #23-16 Well
December 21, 1992

7. Submittal of Entity Action Form, Form 6, within five working days following commencement of drilling operations and whenever a change in operations or interests necessitates an entity status change.
8. Submittal of the Report of Water Encountered During Drilling, Form 7.
9. Prompt notification prior to commencing operations, if necessary, to plug and abandon the well. Notify Frank R. Matthews, Petroleum Engineer, (Office) (801)538-5340, (Home) (801)476-8613, or R.J. Firth, Associate Director, (Home) (801)571-6068.
10. Compliance with the requirements of Utah Admin. R. 649-3-20, Gas Flaring or Venting, if the well is completed for production.

Trash and sanitary waste should be properly contained and transported to approved disposal locations, not retained in or disposed of in pits on location or downhole. Prior to the commencement of drilling operations, the operator should consult the local/county sanitarian and/or the Department of Environmental Quality, Division of Drinking Water/Sanitation, regarding appropriate disposal of sanitary waste.

This approval shall expire one year after date of issuance unless substantial and continuous operation is underway or a request for an extension is made prior to the approval expiration date. The API number assigned to this well is 43-037-31698.

Sincerely,



R.J. Firth
Associate Director, Oil and Gas

ldc
Enclosures
cc: Bureau of Land Management
San Juan County Assessor
J.L. Thompson
WO11



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WILDLIFE RESOURCES

Norman H. Bangerter
Governor

Dee C. Hansen
Executive Director

Timothy H. Provan
Division Director

1596 West North Temple
Salt Lake City, Utah 84116-3195
801-538-4700
801-538-4441 (Fax)

January 15, 1992

File
R.J. (Comments)

RECEIVED

JAN 22 1993

DIVISION OF
OIL GAS & MINING

Mr. Lowell Braxton, Acting Director
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Dear Mr. Braxton:

The Division of Wildlife Resources has reviewed a proposal by Duncan Energy Company to drill Eclipse 23-16 (T38S, R25E, section 16). We have some concerns with this activity. We have the following recommendations.

The Division of Wildlife Resources recognizes this habitat as high priority deer winter range. This habitat is important to the successful winter survival of mule deer in this area. Considering the habitat values present, the DWR requests that deer winter stipulations be applied to this APD's approval. Deer winter restrictions are December 1 to April 15.

The area is suitable habitat for ferruginous hawks. We have recommended to the Bureau of Land Management that a survey be conducted for the road right-of-way. This should also be conducted for the drill pad area and any road construction on state land. All nests are protected; therefore, any nest located in the road or pad site must be protected from destruction. During nesting season (April 10 to June 15), a buffer zone at least 0.5 miles should be used to protect the success of any nest. By conducting a survey, it can be determined whether any construction activities will occur within 0.5 miles of a ferruginous hawk nest.

We appreciate your consideration of our concerns. If there are any questions, please contact Ken Phippen, Regional Habitat Manager (637-3310).

Sincerely,

Timothy H. Provan
Director

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FILING FOR WATER IN THE
STATE OF UTAH
DEC 8 1992

FEB 22 1993

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DEC 7 1992

Rec. by nkl

Rec. 75

Receipt # 92/41

Microfilm

Roll #

DIVISION OF
OIL GAS & MINING

APPLICATION TO APPROPRIATE WATER

For the purpose of acquiring the right to use a portion of the unappropriated water of the State of Utah, application is hereby made to the State Engineer, based upon the following showing of facts, submitted in accordance with the requirements of Title 73, Chapter 3 of the Utah Code Annotated (1953, as amended).

* WATER RIGHT NO. 09 — 1820

* APPLICATION NO. A T66622

1. *PRIORITY OF RIGHT: December 7, 1992 * FILING DATE: December 7, 1992

2. OWNER INFORMATION

Name(s): Duncan Energy Company (303/759-3303) * Interest: _____ %

Address: 1777 S. Harrison Street, PH-1

City: Denver State: CO Zip Code: 80210

Is the land owned by the applicant? Yes _____ No XX

(If "No", please explain in EXPLANATORY section.)

3. QUANTITY OF WATER: _____ cfs and/or 5 ac-ft

4. SOURCE: (4) Underground Wells * DRAINAGE: _____

which is tributary to _____

which is tributary to _____

POINT(S) OF DIVERSION:

COUNTY: San Juan

- 1) N 2350' W 444' from SE Corner of Sec. 12, T38S - R24E 4) N 917' E 2414' from
2) N 1946' E 1152' from SW Corner of Sec. 7, T38S - R25E) SW Corner of Sec. 7,
3) N 1651' E 2236' from SW Corner of Sec. 7, T38S - R25E) T38S - R25E

Description of Diverting Works: 1) 8"x506' 2) 8"x518' 3) 8"x496' 4) 8"x506'

* COMMON DESCRIPTION: 7½ mi. North of Hatch Trading Post Hatch Trading Post Quad

5. POINT(S) OF REDIVERSION

The water will be rediverted from N/A at a point:

Description of Rediverting Works: _____

6. POINT(S) OF RETURN

The amount of water consumed will be _____ cfs or 5 ac-ft

The amount of water returned will be -0- cfs or _____ ac-ft

The water will be returned to the natural stream/source at a point(s): _____

7. STORAGE

Reservoir Name: _____ Storage Period: from _____ to _____

Capacity: _____ ac-ft. Inundated Area: _____ acres

Height of dam: _____ feet

Legal description of inundated area by 40 acre tract(s): _____

* These items are to be completed by the Division of Water Rights

TEMPORARY

Appropriate

8. List any other water rights which will supplement this application _____

9. NATURE AND PERIOD OF USE

Irrigation:	From _____ to _____
Stockwatering:	From _____ to _____
Domestic:	From _____ to _____
Municipal:	From _____ to _____
Mining:	From _____ to _____
Power:	From _____ to _____
Other: Oil Well Drilling	From <u>12/15/92</u> to <u>4/15/93</u>

10. PURPOSE AND EXTENT OF USE

Irrigation: _____ acres. Sole supply of _____ acres.
Stockwatering (number and kind): _____
Domestic: _____ Families and/or _____ Persons
Municipal (name): _____
Mining: _____ Mining District in the _____ Mine
Ores mined: _____
Power: Plant name: _____ Type: _____ Capacity: _____
Other (describe): Duncan Energy Company plans to drill the Eclipse State #23-16.
Anticipated spud date is December 20, 1992.

11. PLACE OF USE

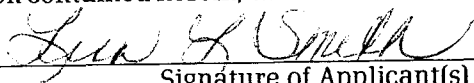
Legal description of place of use by 40 acre tract(s): _____

- 1) Eclipse State #23-16:
N. 1615 ft. & E. 1680 ft. from SW Cor. Sec. 16, T38S, R25E, SLB&M (NE $\frac{1}{4}$ SW $\frac{1}{4}$)
43-031-31698

12. EXPLANATORY

The following is set forth to define more clearly the full purpose of this application. (Use additional pages of same size if necessary): Duncan Energy Company proposes to drill an oil well at the location shown above for the Eclipse State #23-16. Water to drill this well will not exceed 5 acre feet. Water will be trucked to the proposed drill-site. The pump truck will have a capacity of 80-100 bbls. and will be enclosed. The surface at the drillsite is owned by the State of Utah, the minerals are also owned by the State of Utah and the extraction rights to this state lease is owned by Duncan Energy Company under lease no. ML-26992. Permission for the use of the water has been obtained from Mr. Richard Perkins as per the attached letter.

The applicant(s) hereby acknowledges that he/she/they are a citizen(s) of the United States of America or intends to become such a citizen(s). The quantity of water sought to be appropriated is limited to that which can be beneficially used for the purposes herein described. The undersigned hereby acknowledges that even though he/she/they may have been assisted in the preparation of the above-numbered application through the courtesy of the employees of the Division of Water Rights, all responsibility for the accuracy of the information contained herein, at the time of filing, rests with the applicant(s).


Signature of Applicant(s)
Lisa L. Smith - Authorized Agent for
Duncan Energy Company

TEMPORARY

STATE ENGINEER'S ENDORSEMENT

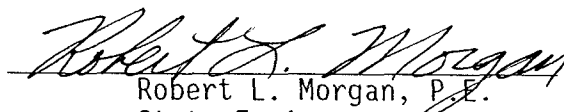
WATER RIGHT NUMBER: 09 - 1820

APPLICATION NO. T66622

1. December 7, 1992 Application received by MP.
 2. December 7, 1992 Application designated for APPROVAL by MP and KLJ.
 3. Comments:
-
-

Conditions:

This application is hereby APPROVED, dated February 19, 1993, subject to prior rights and this application will expire on February 19, 1994.


Robert L. Morgan, P.E.
State Engineer

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

NAME OF COMPANY: DUNCAN ENERGY 43-037-31698

WELL NAME: ECLIPSE STATE 23-16

Section 16 Township 38S Range 25E County SAN JUAN

Drilling Contractor ARAPAHOE

Rig # 4

SPUDDED: Date 3/12/93

Time 5:30 PM

How ROTARY

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Drilling will commence

Reported by MAX SIMMS

Telephone #

Date MKH SIGNED 3/12/93

Duncan Energy Company / N3370

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
A	99999	11466	43-037-31698	Eclipse State #23-16	NESW	16	38S	25E	San Juan	3-13-93	3-13-93

WELL 1 COMMENTS: Drill new well.

Entity added 3-24-93. Jec

WELL 2 COMMENTS:

WELL 3 COMMENTS:

WELL 4 COMMENTS:

WELL 5 COMMENTS:

ACTION CODES (See Instructions on back of form)

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected.

(3/89)

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MAR 22 1993

DIVISION OF
OIL GAS & MINING

Marie Okey

Signature

3-19-93

Sr. Engineering Technician

Title

Date

Phone No. 303 5759-3303

Division of Oil, Gas and Mining
PHONE CONVERSATION DOCUMENTATION FORM

Route original/copy to:

☐ Well File Eclipse State ☐ Suspense ☐ Other
23-16 (Return Date) _____
(Location) Sec 16 Twp 38S Rng 25E (To - Initials) _____
(API No.) 43-037-31698

1. Date of Phone Call: 3-25-93 Time: 10:35

2. DOGM Employee (name) J. R. MATTHEWS (Initiated Call ☐)
Talked to:

Name Max Simma (Initiated Call ☒) - Phone No. (303) 749-0865
of (Company/Organization) Nucon Energy

3. Topic of Conversation: Plugging & abandonment

4. Highlights of Conversation: TD'd 3-24-93 - 109 well. DRY
hole. TD 5907'

Log Tops

<u>5871' Akah</u>	<u>plug #1 5709-5700'</u>
<u>5848' Chimney Rock</u>	<u>plug #2 5600-5400'</u>
<u>5831' Lower Desert Creek</u>	<u>plug #3 1850-1650</u>
<u>5780' Upper Desert Creek</u>	<u>50' plug @ surface</u>
<u>5754' Gothic Shale</u>	<u>weld plate on</u>
<u>5707 Lower Smay</u>	<u>NO marker -</u>
<u>5670' Havenweep</u>	
<u>5499' Upper Smay</u>	
<u>Chinle top picked @ 1690' No log.</u>	
<u>8 5/8" csg @ 1748 60' into Chinle</u>	

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT— for such proposals

1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other (specify) Dry Hole		6. Lease Designation and Serial Number ML-26992
2. Name of Operator Duncan Energy Company		7. Indian Allottee or Tribe Name N/A
3. Address of Operator 1777 S. Harrison St. P-1	4. Telephone Number 303-759-3303	8. Unit or Communitization Agreement N/A
5. Location of Well Footage : 1615' FSL & 1680' FWL QQ, Sec, T., R., M. : NESW 16-38S-25E		9. Well Name and Number Eclipse State 23-16
		10. API Well Number 43-037-31698
		11. Field and Pool, or Wildcat Wildcat
County : San Juan State : UTAH		

12. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA																											
<p>NOTICE OF INTENT (Submit in Duplicate)</p> <table> <tr> <td><input type="checkbox"/> Abandonment</td> <td><input type="checkbox"/> New Construction</td> </tr> <tr> <td><input type="checkbox"/> Casing Repair</td> <td><input type="checkbox"/> Pull or Alter Casing</td> </tr> <tr> <td><input type="checkbox"/> Change of Plans</td> <td><input type="checkbox"/> Recompletion</td> </tr> <tr> <td><input type="checkbox"/> Conversion to Injection</td> <td><input type="checkbox"/> Shoot or Acidize</td> </tr> <tr> <td><input type="checkbox"/> Fracture Treat</td> <td><input type="checkbox"/> Vent or Flare</td> </tr> <tr> <td><input type="checkbox"/> Multiple Completion</td> <td><input type="checkbox"/> Water Shut-Off</td> </tr> <tr> <td><input type="checkbox"/> Other _____</td> <td></td> </tr> </table> <p>Approximate Date Work Will Start _____</p>	<input type="checkbox"/> Abandonment	<input type="checkbox"/> New Construction	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Pull or Alter Casing	<input type="checkbox"/> Change of Plans	<input type="checkbox"/> Recompletion	<input type="checkbox"/> Conversion to Injection	<input type="checkbox"/> Shoot or Acidize	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Vent or Flare	<input type="checkbox"/> Multiple Completion	<input type="checkbox"/> Water Shut-Off	<input type="checkbox"/> Other _____		<p>SUBSEQUENT REPORT (Submit Original Form Only)</p> <table> <tr> <td><input checked="" type="checkbox"/> Abandonment *</td> <td><input type="checkbox"/> New Construction</td> </tr> <tr> <td><input type="checkbox"/> Casing Repair</td> <td><input type="checkbox"/> Pull or Alter Casing</td> </tr> <tr> <td><input type="checkbox"/> Change of Plans</td> <td><input type="checkbox"/> Shoot or Acidize</td> </tr> <tr> <td><input type="checkbox"/> Conversion to Injection</td> <td><input type="checkbox"/> Vent or Flare</td> </tr> <tr> <td><input type="checkbox"/> Fracture Treat</td> <td><input type="checkbox"/> Water Shut-Off</td> </tr> <tr> <td><input type="checkbox"/> Other _____</td> <td></td> </tr> </table> <p>Date of Work Completion <u>3-26-93</u></p> <p>Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form. * Must be accompanied by a cement verification report.</p>	<input checked="" type="checkbox"/> Abandonment *	<input type="checkbox"/> New Construction	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Pull or Alter Casing	<input type="checkbox"/> Change of Plans	<input type="checkbox"/> Shoot or Acidize	<input type="checkbox"/> Conversion to Injection	<input type="checkbox"/> Vent or Flare	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Water Shut-Off	<input type="checkbox"/> Other _____	
<input type="checkbox"/> Abandonment	<input type="checkbox"/> New Construction																										
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<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Water Shut-Off																										
<input type="checkbox"/> Other _____																											

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Duncan Energy Company plugged and abandoned the subject well on 3-26-93 as follows:

Plug #1 5907-5700' 63 sx Premium
Plug #2 5600-5400' 76 sx Standard
Plug #3 1850-1650' 77 sx Standard
Plug #4 50' to surf 21 sx Standard

Weld head & flat plate dry hole marker.

Glen Goodwin w/ Utah Oil & Gas Commission on location for top plug. Verbal approval to P&A from Frank Mathews w/Utah Oil & Gas Commission.

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DIVISION OF
OIL GAS & MINING

14. I hereby certify that the foregoing is true and correct

Name & Signature Mario D'Kege
(State Use Only)

Title Sr. Engineering Tech Date 4-5-93

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APR 06 1993

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
DIVISION OF
OIL GAS & MINING**WELL COMPLETION OR RECOMPLETION REPORT AND LOG**

1. TYPE OF WELL: OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input checked="" type="checkbox"/> Other _____						5. LEASE DESIGNATION AND SERIAL NO. ML-26992	
2. TYPE OF COMPLETION: NEW WELL <input type="checkbox"/> WORK OVER <input type="checkbox"/> DEEP-EN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> Other <u>P&A</u>						6. IF INDIAN, ALLOTTEE OR TRIBE NAME N/A	
3. NAME OF OPERATOR Duncan Energy Company						7. UNIT AGREEMENT NAME N/A	
4. ADDRESS OF OPERATOR 1777 S. Harrison St. P-1 Denver, CO 80210						8. FARM OR LEASE NAME Eclipse State	
5. LOCATION OF WELL (Report location clearly and in accordance with any State requirements) At surface 1615' & 1680' FWL 16-38S-25E NESW At top prod. interval <u>FSL</u> reported below At total depth Same						9. WELL NO. 23-16	
10. FIELD AND POOL, OR WILDCAT Wildcat						11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA 16-38S-25E NESW	
14. API NO. 43-037-31698		DATE ISSUED 12-21-92		12. COUNTY San Juan		13. STATE Utah	
15. DATE SPUNDED 3-12-93		16. DATE T.D. REACHED 3-25-93		17. DATE COMPL. (Ready to prod.) N/A <u>3-25-93</u> (Date of Add.)		18. ELEVATIONS (OF. HEB. AT. CR. ETC.) 5192 GR 5205 KB	
19. ELEV. CASINGHEAD -		20. TOTAL DEPTH, MD & TVD 5907'		21. PLUG BACK T.D., MD & TVD N/A		22. IF MULTIPLE COMPL. HOW MANY N/A	
23. INTERVALS DRILLED BY →		24. ROTARY TOOLS X		25. CABLE TOOLS		26. WAS DIRECTIONAL SURVEY MADE NO	
27. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD) N/A						28. TYPE ELECTRIC AND OTHER LOGS RUN BHC, DIL, CNL-FDC, <u>CYBERLOOK 3-31-93</u>	
29. WAS WELL CORED YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> (Submit analysis) DRILL STEM TEST YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> (See reverse side)							
30. CASING RECORD (Report all strings set in well)							
CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD		AMOUNT FULLED	
13-3/8"	61#	118'	17-1/2"	150 sx Standard w/add		None	
8-5/8"	24#	1748'	12-1/2"	675 sx Lite w/add		None	
				150 sx G w/add			
31. LINER RECORD							
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT	SCREEN (MD)	32. TUBING RECORD		
N/A					SIZE	DEPTH SET (MD)	PACKER SET (MD)
					N/A		
33. PERFORATION RECORD (Interval, size and number) N/A				34. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.			
				DEPTH INTERVAL (MD)			
				AMOUNT AND KIND OF MATERIAL USED			
				N/A			
35. PRODUCTION							
DATE FIRST PRODUCTION N/A		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)				WELL STATUS (Producing or shut-in)	
DATE OF TEST	HOURS TESTED	CHOKES SIZE	PROD'N. FOR TEST PERIOD	OIL—BSL.	GAS—MCF.	WATER—BSL.	GAS-OIL RATIO
			→				
FLOW, TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BSL.	GAS—MCF.	WATER—BSL.	OIL GRAVITY-API (CORR.)	
		→					
36. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)						TEST WITNESSED BY	
37. LIST OF ATTACHMENTS							
38. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records							
SIGNED <u>Mario O'Keefe</u>				TITLE <u>Sr. Engineering Technician</u>		DATE <u>4-5-93</u>	

See Spaces for Additional Data on Reverse Side

INSTRUCTIONS

This form should be completed in compliance with the Utah Oil and Gas Conservation General Rules. If not filed prior to this time, all logs, tests, and directional surveys as required by Utah Rules should be attached and submitted with this report.

ITEM 18: Indicate which elevation is used as reference for depth measurements given in other spaces on this form and on any attachments.

ITEMS 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

ITEM 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

ITEM 33: Submit a separate completion report on this form for each interval to be separately produced (see instruction for items 22 and 24 above).

37. SUMMARY OF POROUS ZONES: Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.			38. GEOLOGIC MARKERS			
Formation	Top	Bottom	Description, contents, etc.	Name	Meas. Depth	True Vert. Depth
				Upper Ismay	5498'	
				Hovenweep Shale	5674'	
				Lower Ismay	5708'	
				Desert Grk	5782'	
				Chimney Rk Sh	5850'	
				Akah	5870'	
				Top of Salt	5902'	

MONACO SERVICES, INC.

GEOLOGICAL REPORT

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APR 09 1993

DIVISION OF
OIL GAS & MINING



DUNCAN ENERGY CO.
ECLIPSE STATE 23-16
NE SW SEC. 16 -T38S - R25E
SAN JUAN COUNTY, UTAH

43-037-31698
1613 FSL 1680-FWL

CONSULTING GEOLOGIST
SID WARNER, DENVER, COLORADO

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DEVIATION SURVEYS	9
DAILY MUD RECORDS	9
E-LOG PROCEDURES AND REMARKS	10
MARKED ELECTRIC LOG	APPENDIX

WELL DATA AND INFORMATION

OPERATOR: Duncan Energy Company
1777 S. Harrison St.
Penthouse 1
Denver, CO 80210

WELL NAME: Eclipse State 23-16

PROSPECT: Cross Canyon 44-2-508

FIELD: Wildcat

LOCATION: ne sw Sec. 16 - T38S - R25E
1615' FSL, 1680' FWL
San Juan County, Utah

ELEVATIONS: GROUND LEVEL - 5192'
KELLY BUSHING - 5206'

SPUD DATE: 12 March 1993 - 1730 hrs

TOTAL DEPTH DATE: 24 March 1993

TOTAL DEPTH: DRILLER - 12,300'
SLM - 12,295'
E-LOGS - 12,274'

WELL STATUS: Plug and abandon

FORMATIONS: SURFACE - Morrison
BOTTOM HOLE - Pennsylvanian - Chimney Rock Shale

HOLE SIZE: 17 1/2" - 120'
12 1/4" - 1750'
7 7/8" - 5907'

CASING RECORD: 13 3/8" set @ 116'
8 5/8" set @ 1748'

DRILLING CONTRACTOR: NAME - Arapahoe Drilling company, Rig # 4

DRAWWORKS	- National 50
PUMP #1	- GA 550
PUMP #2	- Emsco D 300
DRILL PIPE	- 4 1/2", X Hole
COLLARS	- 6"
PUSHER	- Doyle Castle

SUPERVISOR: Max Sims

GEOLOGIST: Sid Warner - Geological Evaluations, Inc.

DRILLING MUD: COMPANY - Unibar Davis
MUD TYPE - Dispersed Chem/Gel

ENGINEER - Carrol Hart

CEMENTING: Dowell-Schlumberger

MUD LOGGING: COMPANY - Monaco Services, Inc.
EQUIPMENT - THA & Chromat: FID
PERSONNEL - Christopher Jensen

ELECTRIC LOGS: COMPANY - Schlumberger Well Services
LOCATION - Farmington, NM

LOG TYPES: DIL SFL GR SP - 1748' - 5906'
BHC SONIC GR CAL - 4400' - 5906'
CNL FDC GR CAL - 4400' - 5906'
CYBERLOOK - 5450' - 5906'

DRILL STEM TESTS: None
CORES: None

GEOLOGIC SUMMARY and CONCLUSIONS

The Duncan Energy Co. Eclipse State 23-16 was a wildcat drilled to test the Pennsylvanian Hermosa Group Upper Ismay Carbonate and the Lower Desert Creek Carbonate zones.

The Eclipse State 23-16 was spudded on 12 March 1993. 13 3/8" casing was set at 116' and 8 5/8" casing was set at 1748'. A 7 7/8" hole was then drilled to T.D. of 5906' (E-Log). T.D. was reached on 24 March 1993 with 202.75 total rotating hours. A 1 man mud-logging unit and geological consultant were provided by Monaco Services and Geological Evaluations, Inc. from 4400' to T.D..

Anhydrite facies were encountered where carbonate mound buildups were thought to exist. No significant shows were observed in any of the potential reservoirs in the well.

After electric logs were run and evaluated, the decision to plug and abandon the well was made. Permission to plug and abandon the well was received on 25 March 1993.

SHOW ANALYSIS

HERMOSA (HONAKER TRAIL FORMATION) 5210 - 5212

Sandstone medium grained subrounded calcareous cemented. No drilling break, 3 minutes per foot before, during and after gas increase. A gas show exhibiting 110 unit total gas increase with C1 - C4 present was encountered. This is a Poor show in a tight facies.

UPPER ISMAY ZONE AND LOWER DESERT CREEK ZONE (PARADOX FORMATION)

These two zones were the main and secondary objectives in this well. Neither zone had a hydrocarbon show.

The carbonaceous shales of the Hovenweep, Gothic and Chimney Rock zones of the Paradox Formation all had substantial gas increases with total gas increasing to over 200 units and C1 - C4 present.

The only zone that had a gas increase in the Carbonate Facies was in the Upper Desert Creek zone of the Paradox Formation from 5790' - 5796'. Total gas increased to over 200 units and C1 - C4 were present. This zone is tight.

DAILY DRILLING CHRONOLOGY

DATE 1993	DEPTH MIDNIGHT	24 HR FTG.	DAILY ACTIVITY
12 Mar	116'	116'	Move in rig up, spud at 1730 Hrs., run 13 3/8 casing set at 116', cement with 150 sx, wait on cement
13 Mar	1306'	1190'	Wait on Cement, Cut off 13 3/8"
14 Mar	1748'	442'	Drilled to 1748', Ran 8 5/8" casing set at 1748', cement with 675 sx, tail with 150 sx class "B", W.O.C.
15 Mar	2250'	502'	Wait on Cement, cut off 8 5/8" casing, Nipple up BOP, Pressure test, Drill cement, Drill ahead
16 Mar	3320'	1070'	Drill ahead.
17 Mar	4148'	828'	Drill ahead.
18 Mar	4620'	472'	Drill ahead, Trip for bit at 4148', start mudding up at 4148', water flow during trip, washed bridges at 2600' and 2745', reamed 3962' - 4148'
19 Mar	5074'	454'	Drill ahead.
20 Mar	5147'	73'	Drill ahead, lost cone on bit # 6, drill on junk, trip in with magnet, recovered spindle off cone, trip in with bit #7, drill ahead.
21 Mar	5426'	279'	Drill ahead trip for hole in drill pipe, found hole 15 stands out, drill ahead
22 Mar	5620'	194'	Drill ahead, trip for hole in drill pipe, drill ahead.
23 Mar	5825'	205'	Drill ahead, repair leak below Braden head.
24 Mar	5907'	82'	Drill ahead to T.D. @ 5907', Schlumberger on location.
25 Mar	5907'	0'	Run wireline logs, prepare to P. & A.

FORMATION TOPS

FORMATION NAME or GEOLOGIC MARKER	SAMPLE TOPS	E-LOGS TOPS	DATUM (KB = 5206')
Pennsylvanian			
Hermosa Group			
(Honaker Trail Formation)	4507'	4505'	+701
Paradox Formation			
Upper Ismay	5498'	5499'	-293'
Upper Ismay			
Carbonate Equiv. "A"	5570'	5575'	-369'
Upper Ismay			
Carbonate Equiv. "B"	5616'	5618'	-412'
Hovenweep Shale	5674'	5670'	-464'
Lower Ismay	5708'	5707'	-501'
Gothic Shale	5750'	5754'	-548'
Desert Creek	5782'	5780'	-574'
Lower Desert Creek		5831'	-625'
Chimney Rock Shale	5850'	5848'	-642'
Akah	5870'	5871'	-665'
Top of Salt	5902'	5901'	-695'
T.D.	5906'	5907'	-700'

LITHOLOGIC DESCRIPTIONS

10' Samples: 4400' to T.D.

Samples caught by rig crews

Sample quality: Fair to good

Sample descriptions are lagged to their respective depth.

4400' - 4454' SHALE gray graygreen, slightly firm, some red platy, subfissile silty in part slightly calcareous.

4454' - 4482' SANDSTONE white salt and pepper, partly consolidated, fine to medium grained, subrounded to subangular, calcareous cement.

4482' - 4507' SHALE as above interbedded with limestone, white to gray cryptocrystalline.

HERMOSA GROUP (HONAKER TRAIL FORMATION) SAMPLE TOP 4507', E LOG TOP 4505'

4507' - 4552' LIMESTONE white to gray tan, microcrystalline to dense, some slightly argillaceous.

4552' - 5216' LIMESTONE AND SHALE interbedded as above. First C2 @ 4980', First C3 @ 5203', First C4 @ 5212', no visible hydrocarbon shows.

5216' - 5498' LIMESTONE white to light gray to dark gray some brown, dense to microcrystalline some argillaceous, trace chert at 5238', trace anhydrite at 5448' alternating with occasional thin beds of shale, graygreen brown occasionally brick red, some calcareous.

PARADOX FORMATION UPPER ISMAY SAMPLE TOP 5498', E LOG TOP 5499'

5498' - 5556' LIMESTONE light to dark gray firm to hard, microcrystalline, trace of Foraminifera, interbedded with shale, red gray, slightly firm, platy, subfissile, calcareous, occasional black carbonaceous shale, trace pyrite, trace anhydrite, no visible porosity.

UPPER ISMAY CARBONATE EQUIVALENT "A" SAMPLE TOP 5570', E LOG TOP 5575'

5570' - 5616' LIMESTONE AND SHALE as above, anhydrite white stained orange, soft, non crystalline.

UPPER ISMAY CARBONATE EQUIVALENT "B" SAMPLE TOP 5616', E LOG TOP 5618'

5617' - 5670' LIMESTONE gray, firm to hard, microcrystalline, trace dolomite, sucrosic. NOTE: This zone and succeeding zones of high resistivity and low porosity indicate anhydrite. Ca+ increased in the mud to 80,000 ppm, indication the anhydrite going into solution.

HOVENWEEP SHALE SAMPLE TOP 5674', E LOG TOP 5670'

5670' - 5708' SHALE dark gray to black, carbonaceous, slightly calcareous, firm, subfissile, mudlog gas increase noted in shale, no hydrocarbon show.

LOWER ISMAY SAMPLE TOP 5708', E LOG TOP 5707'

5708' - 5754' LIMESTONE brown graybrown, firm to hard, microcrystalline, argillaceous, tight.

GOTHIC SHALE SAMPLE TOP 5750', E LOG TOP 5754'

5754' - 5780' SHALE black to dark gray, soft to firm, subfissile, carbonaceous, slightly calcareous, mudlog gas increase at top of Gothic Shale, no hydrocarbon show.

DESERT CREEK SAMPLE TOP 5782', E LOG TOP 5780'

5780' - 5831' LIMESTONE as above and dolomite, gray. firm to hard, argillaceous, occasionally sucrosic, trace anhydrite, mudlog gas increase 5790' - 5796', no visible hydrocarbon show.

LOWER DESERT CREEK E LOG TOP 5831'

5831' - 5848' LIMESTONE gray to dark gray, firm to hard, some argillaceous.

CHIMNEY ROCK SHALE SAMPLE TOP 5850', E LOG TOP 5848'

5848' - 5870' SHALE gray to graybrown, firm calcareous, some argillaceous, grading to limestone gray to dark gray, hard argillaceous, mudlog gas increase 5856' - 5864', C1 - C4 present, no visible hydrocarbon show.

AKAH SAMPLE TOP 5870', E LOG TOP 5871'

5870' - 5901' LIMESTONE and shale as above.

SALT SAMPLE TOP 5902', E LOG TOP 5901'

5901' - 5907' SALT going into solution, not visible in samples, increase in Cl⁻ ion in mud.

BIT RECORD

NO.	SIZE	MAKE	TYPE	OUT	FTG.	HOURS	FT/HR.
1	17 1/2"	HTC	J11	116'	116'	4 3/4	24.4
2	12 1/4"	REED	HP51	1691'	1575'	28 1/2	55.0
3	12 1/4"	SECURITY	S82F	1748'	57'	2 1/2	22.8
4	7 7/8"	WKR MCDLD	WM43F	4148'	2400'	54 1/2	44.2
5	7 7/8"	VAREL	V527	5092'	944'	45 1/2	20.8
6	7 7/8"	VAREL	V27	5092'	0'	-----	
7	7 7/8"	VAREL	V527B	5150'	58'	4 1/4	13.6
8	7 7/8"	VAREL	V527	5622'	472'	36 1/2	12.9
9	7 7/8"	WKR MCDLD	52	5907'	285'	26 1/4	10.8

Total Rotating hours = 202 3/4 hours

DRILLING FUNCTIONS

DEPTH	WOB	RPM	SPM	PP	Remarks
SFC - 116'	.1411	90	---	900	
116' - 1306'	30	85	68	900	
1306' - 1748'	30-35	85	---	900	
1748' - 2250'	35	68	56	900	
2250' - 3320'	35	68	58	1000	
3320' - 4148'	35	68	60	1100	
4148' - 4620'	38	72	60	1200	
4620' - 5074'	38	72	60	1150	
5074' - 5147'	38	72	60	160	
5147' - 5426'	38	68	60	1150	
5426' - 5622'	38	68	64	1050	
5622' - 5825'	38	68	60	1100	
5825' - 5907'	38	68	68/60	1050	

SURVEYS

DEPTH	DEV DEG
116'	1/4
503'	1/4
1003'	1/2
1533'	3/4
1748'	1/4
2744'	3/4
3230'	1
3743'	1
4148'	1 1/2
4650'	1 1/2
5092'	1 1/2
5907'	1/2

MUD PROPERTIES

Date	Depth	WT	VIS	pH	CL	CK	Sd	Sol
MAR 12 - MAR 16 DRILLED WITH SPUD MUD AND WATER								
MAR 17	3320	8.3	26	11	600			
MAR 18	4148	8.3+	26	7.5	4400			
MAR 19	4620	8.6	30	8.5	8200	2+	TR	1.5
MAR 20	5074	9.3	35	7.5	8500	3	1/8	6.5
MAR 21	5147	9.1	32	8.5	9600	2+	TR	5
MAR 22	5426	9.5	38	12	16400	2	1/8	7.5
MAR 23	5622	9.6	45	12.5	12400	2	1/2	8
MAR 24	5825	9.6	37	11.5	14200	2	TR	8
MAR 25	5907	10.6	46	11	13400	2	TR	13.5

MUD TYPE: DISPERSED CHEMICAL GEL

LOG SUITE AND REMARKS

Dual Induction SFL with GR and SP	1748' - 5906'
Borehole Compensated Sonic with GR and Cal.	4400' - 5906'
Compensated Neutron - Formation Density with GR and Cal.	4400' - 5906'
Cyberlook (Computer Analysis)	5450' - 5906'

LOG REMARKS

Schlumberger arrived on location before we were out of the hole. No problems occurred during the logging run. Log quality is good. Logs were run on a limestone matrix (2.71 G/cc)

Density neutron crossover occurred at the top of the Upper Ismay between 5500' and 5502' indicating a 2' gas bearing zone.

The Cyberlook using an R_w of .03 indicates a zone in the Upper Ismay between 5522' and 5552'. The zone is tight with only 7% porosity and a Cyberlook water saturation of approximately 40%. No other zones of interest were noted.

Schlumberger

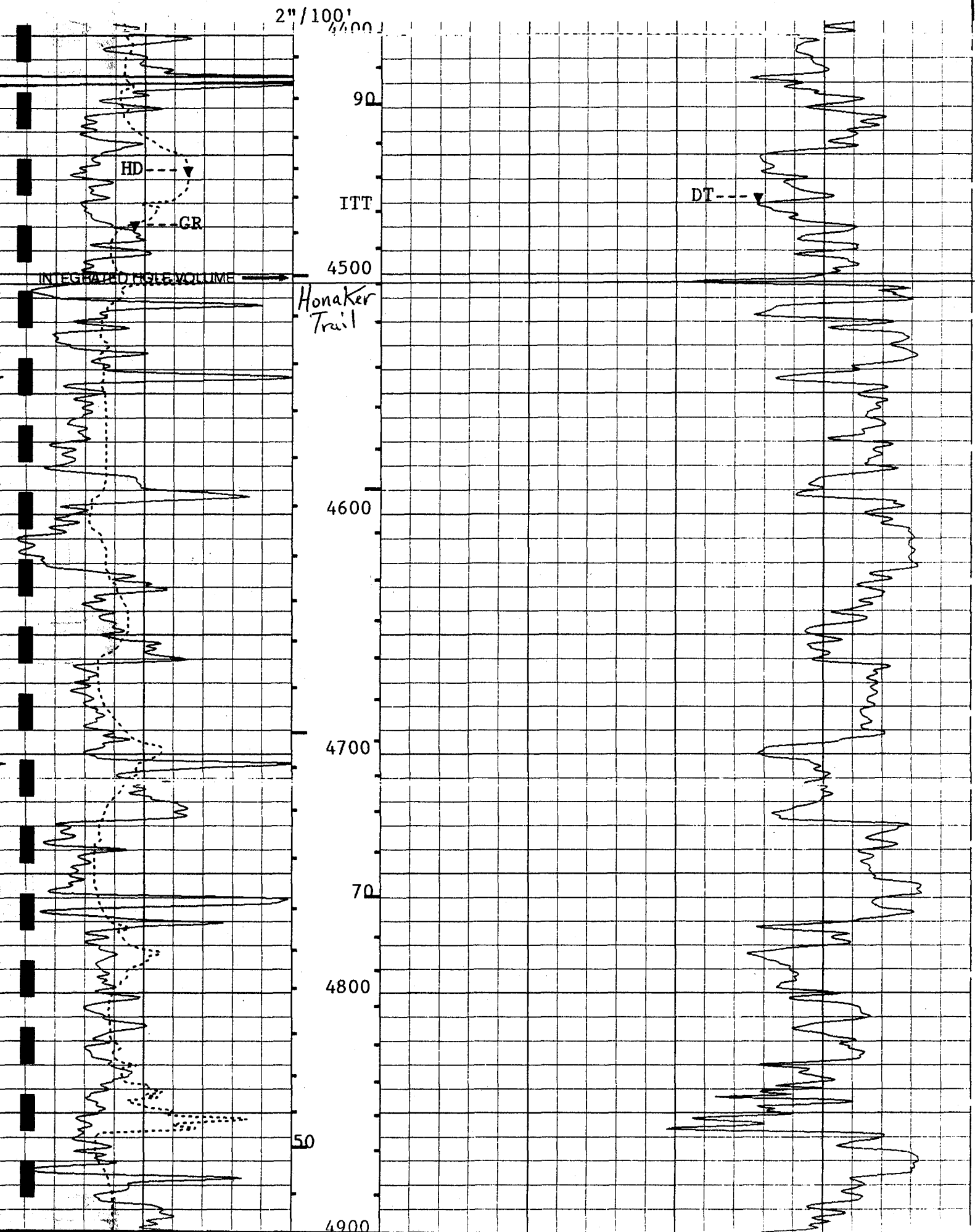
BOREHOLE COMPENSATED SONIC LOG

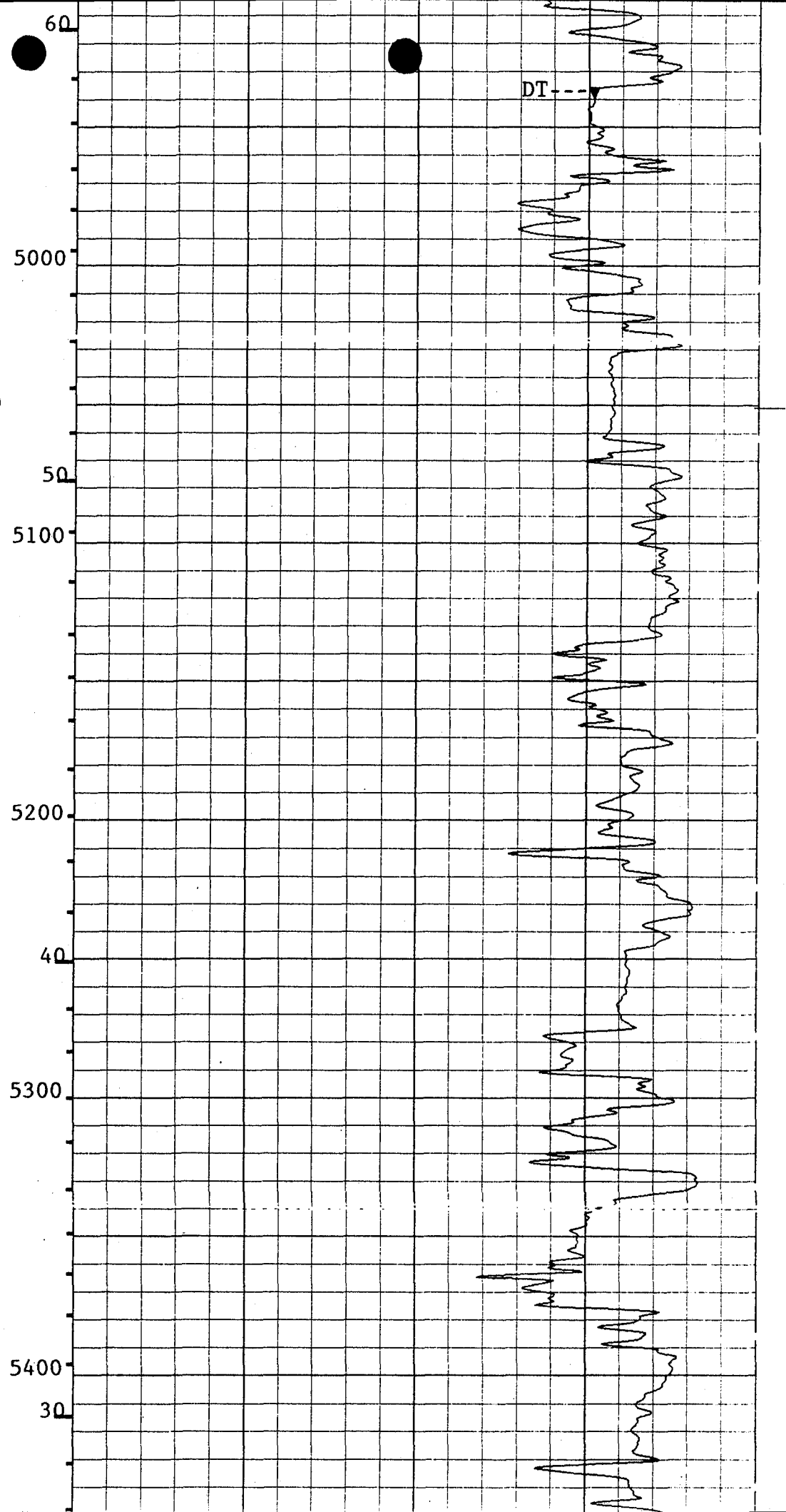
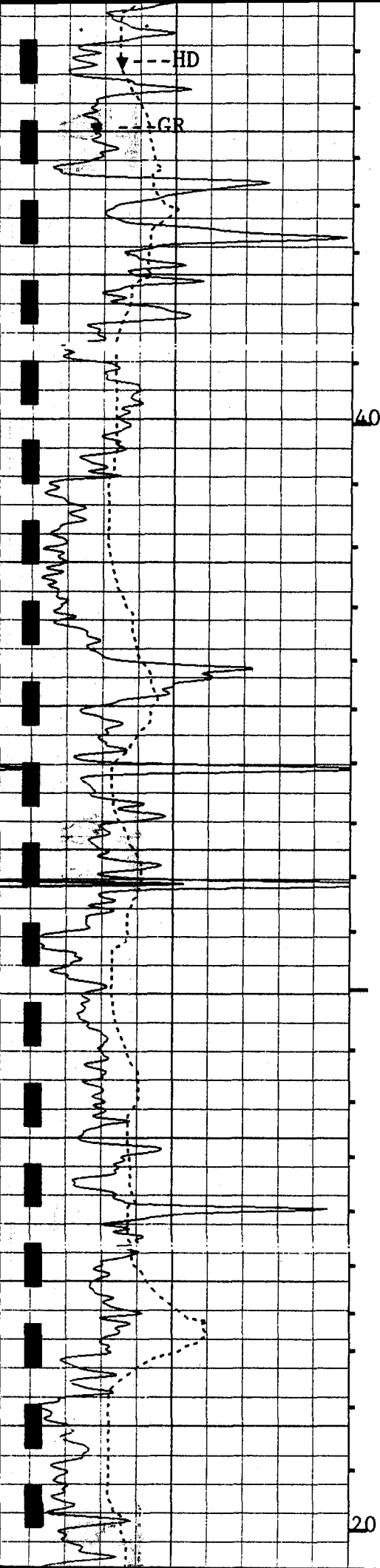
COUNTY		WELL		COMPANY		DUNCAN ENERGY COMPANY	
SAN JUAN		ECLIPSE STATE #23-16		DUNCAN ENERGY COMPANY		DUNCAN ENERGY COMPANY	
FIELD		WILDCAT		COUNTY		STATE	
SAN JUAN		UTAH		COUNTY		STATE	
LOCATION		1615' FSL & 1680' FWL		Other Services:		DITE-GR	
NESW				LDT/CNL-GR		BHC-GR	
API SERIAL NO.		SECT.		TWP.		RANGE	
N/A		16		38 S		25 E	
Permanent Datum		GROUND LEVEL		Elev.		5192.0 F	
Log Measured From		KELLY BUSHING		14.0 F		above Perm. Datum	
Drilling Measured From		KELLY BUSHING				Elev.: K.B.5206.0 F	
						D.F.5205.0 F	
						G.L.5192.0 F	
Date		25-MAR-1993					
Run No.		ONE					
Depth Driller		5907.0 F					
Depth Logger (Schl.)		5906.0 F					
Btm. Log Interval		5886.0 F					
Tbp Log Interval		4400.0 F					
Casing-Driller		8 5/8" @ 1748.0 F		@		@	
Casing-Logger		1748.0 F					
Bit Size		7 7/8" @ 5906.0 F		@		@	
Type of Mud in Hole		DISPERSED					
Dens.		10.60 LB/G		46.0 S			
pH		Fld. Loss		10.5		11.0 C3	
Source of Sample		FLOWLINE					
Rm @ Meas. Temp.		.375 OHMM @ 68.0 DEGF		@		@	
Rmf @ Meas. Temp.		.243 OHMM @ 68.0 DEGF		@		@	
Rmc @ Meas. Temp.		.558 OHMM @ 68.0 DEGF		@		@	
Source: Rmf		MEASURED		MEASURED			
Rm @ BHT		.201 OHMM @ 133. DEGF		@		@	
Circulation Ended		18:15 24-MAR-1993					
Logger on Bottom		SEE LOG					
Max. Rec. Temp.		133. DEGF					
Equip.		Location		8191		FARMINGTON	
Recorded By		GEORGE TRACY					
Witness By		SUN & WARNER					

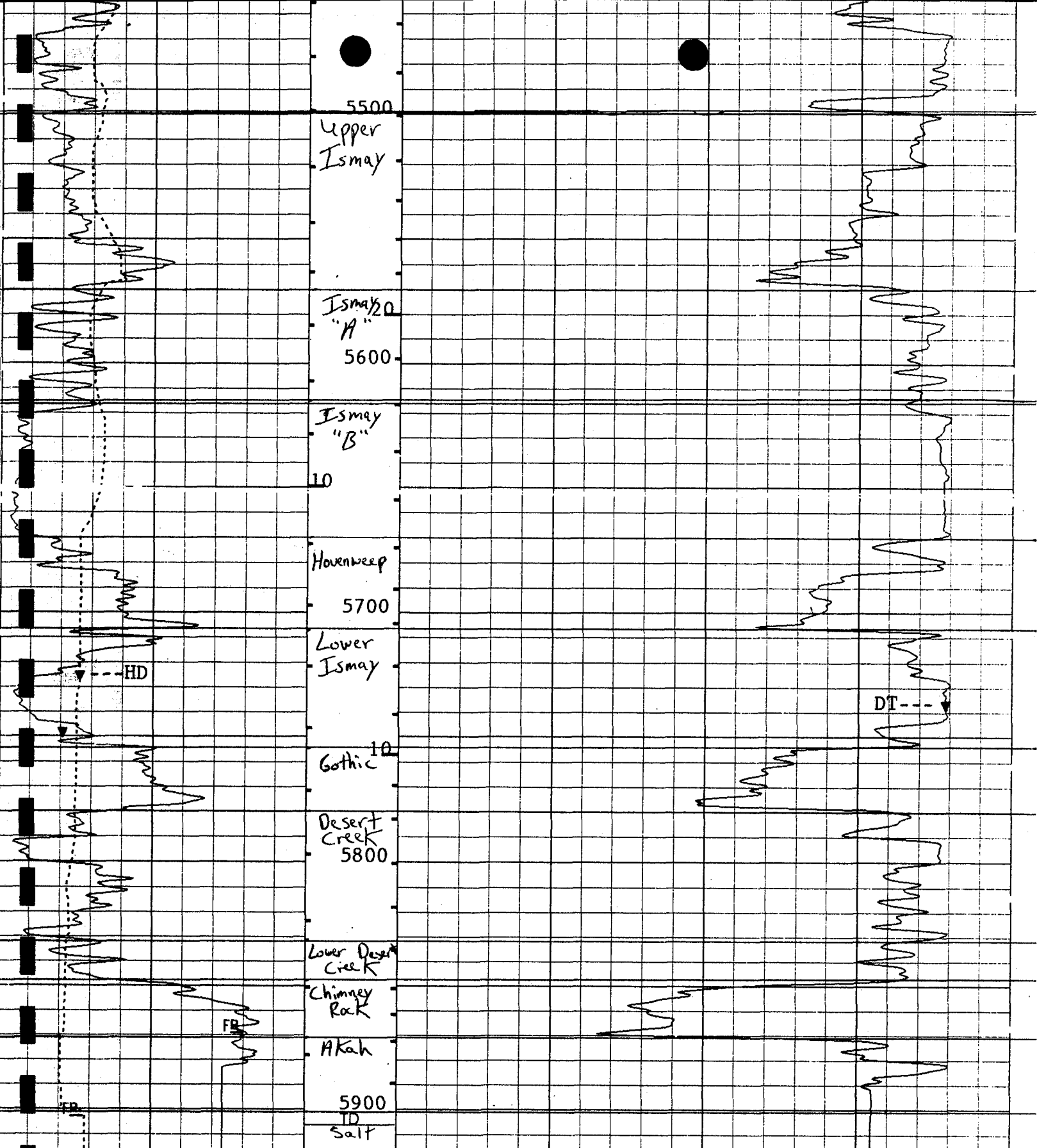
The well name, location and borehole reference data were furnished by the customer.

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretations made by any of our officers, agents or employees. These interpretations are also subject to Clause 4 of our General Terms and Conditions as set out in our current Price Schedule.

Run No.	ONE	
Service Order No.	597803	
Drilling Fluid Level	0.0 F	
Salinity		
Rimf @ BHT	.130 OHMM @ 133. DEGF	@
Inc @ BHT	.299 OHMM @ 133. DEGF	@
Logging Speed	3600.0 F/HR	
EQUIPMENT DATA		
Tool Number 1	DRS 3889	
Tool Number 2	NSC 2903	
Tool Number 3	PGD 2796	
Tool Number 4	CNC 2343	
Tool Number 5	DIS 490	
Tool Number 6	DIC 487	
Tool Number 7	SLS WA 204	
Tool Number 8	SLC C 507	
Tool Number 9	MCD G 31	
Tool Number 10		
Tool Number 11		
Tool Number 12		







CP 32.6

FILE 20

25-MAR-1993 01:44

(UP)

HD(IN.)

16.000

GR(GAP)

200.00

140.00

DT(US/F)

40.000